Amendment to the Claims

Please cancel Claims 6-11, 14, 15, 17-19, 29-32, 34-41, 56-61, and 97.

Please amend Claims 2, 21, 24, 33, 43, 55 and 89 as follows:

1. (Canceled)

2. (Currently Amended) A physiological training and evaluation simulator suitable for training and testing personnel, comprising:

       (a)   a simulated physiological structure; and

       (b)   an evaluation circuit including a conductive elastomer, the conductive elastomer enhancing the realism of the simulated physiological structure, ~~the evaluation circuit exhibiting a self-healing ability with respect to punctures not exhibited by evaluation circuits including a metal foil combined with an elastomer,~~ the conductive elastomer being configured as a portion of the simulated physiological structure, said evaluation circuit being configured to ~~provide~~ conduct an electrical signal ~~relating to a simulated procedure being performed on the simulated physiological structure, the electrical signal originating from the portion of the simulated physiological structure including the conductive elastomer without requiring:~~ from a chemical sensor disposed in the physiological training and evaluation simulator when the sensor detects a chemical change in the physiological training and evaluation simulator;

          ~~(i)~~   ~~an electrical current to be provided by an instrument placed in contact with the evaluation circuit during the simulated procedure; or~~

          ~~(ii)~~   ~~the use of an electrically conductive instrument to electrically couple portions of the evaluation circuit together~~.

       (c)   a processor coupled to the evaluation circuit and configured to manipulate the signal; and

       (d)   a physiological control element configured to produce a simulated physiological response in the simulated physiological structure, the physiological control element being coupled to the evaluation circuit so that the processor uses the evaluation circuit to control the physiological control element based on input from the chemical sensor.

3. (Canceled)

4. (Previously Presented) The physiological training and evaluation simulator of Claim 2, wherein the conductive elastomer comprises a conductive carbon dispersed in an elastomeric matrix.

5.   (Previously Presented)   The physiological training and evaluation simulator of Claim 2, wherein the conductive elastomer comprises a metallic powder dispersed in an elastomeric matrix.

6. – 20. (Canceled)

21.   (Currently Amended)   The physiological training and evaluation simulator of ~~Claim 2~~ Claim 88, further comprising an indicator coupled to the evaluation circuit, such that in response to the signal the indicator provides an indication relating to the performance of the simulated procedure.

22.   (Original)   The physiological training and evaluation simulator of Claim 21, wherein the indicator comprises a light source, light emitted by the light source providing feedback regarding the performance of the procedure.

23.   (Original)   The physiological training and evaluation simulator of Claim 21, wherein the indicator comprises a meter, a change in the meter providing feedback regarding the performance of the procedure.

24.   (Currently Amended)   The physiological training and evaluation simulator of ~~Claim 2~~ Claim 88, wherein the simulated physiological structure is a simulated human tissue structure.

25.   (Original)   The physiological training and evaluation simulator of Claim 24, wherein the simulated human tissue structure comprises:

(a)   at least one simulated membranous layer comprising at least one elastomeric layer; and

(b)   at least one simulated sub-membranous layer comprising at least one elastomeric layer underlying a first membranous layer.

26.   (Original)   The physiological training and evaluation simulator of Claim 2, wherein the evaluation circuit is implemented in three dimensions.

27.   (Original)   The physiological training and evaluation simulator of Claim 26, wherein the evaluation circuit is implemented as a three-dimensional grid.

28.   (Original)   The physiological training and evaluation simulator of Claim 27, wherein the three-dimensional grid encompasses a majority of the simulated physiological structure.

29. – 32. (Canceled)

33.   (Currently Amended)   The physiological training and evaluation simulator of ~~Claim 32~~ Claim 2, wherein the physiological control element comprises at least one of a servo and a pump.

34. – 42. (Canceled)

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43. (Currently Amended) The physiological training and evaluation simulator of ~~Claim 2~~ Claim 88, wherein the physiological training and evaluation simulator comprises a surgical trainer, and the simulated physiological structure comprises at least one of a simulated human tissue structure and a simulated organ included in the surgical trainer.

44. (Original) The physiological training and evaluation simulator of Claim 43, wherein the surgical trainer comprises:

(a) at least one simulated structure corresponding to an internal anatomical structure of a human body;

(b) an exterior cover encompassing a substantial portion of the surgical trainer, the exterior cover having at least one predefined opening defining an operative site, so that each opening is disposed adjacent to a different structure, to facilitate access to said structure; and

(c) the simulated human tissue structure is incisable, and is disposed proximate to each predefined opening, such that access to said at least one structure via the adjacent predefined opening requires making an incision in said simulated human tissue structure, an exterior surface of each simulated human tissue structure being substantially flush with respect to an outer surface of the exterior cover, each simulated human tissue structure being removable to be replaced after use, said simulated human tissue structure comprising a plurality of layers, said plurality of layers generally corresponding to layers of tissue found in a human being at a location corresponding to the operative site, and at least one of the plurality of layers including the conductive elastomer.

45.-54. (Canceled)

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55. (Currently Amended) A medical training simulator suitable for medical skills training and evaluation, the medical training simulator comprising a simulated physiological structure and an evaluation circuit including a conductive elastomer, ~~the evaluation circuit exhibiting a self-healing ability with respect to punctures not exhibited by evaluation circuits including a metal foil combined with an elastomer,~~ said conductive elastomer comprising a first elastomeric layer, a second elastomeric layer, and a conductor encapsulated by the first and second elastomeric layers, at least a segment of the evaluation circuit including the conductive elastomer being configured as a portion of the simulated physiological structure, wherein the evaluation circuit is configured to provide data via an electrical signal originating from the portion of the simulated physiological structure in response to <u>a chemical sensor coupled to the evaluation circuit detecting a chemical change in the simulated physiological structure</u> ~~at least one of the following conditions:~~

~~(a)   a manipulation of the portion of the simulated physiological structure causes the conductive path of the evaluation circuit to be opened;~~

~~(b)   a sensor coupled to the evaluation circuit detects a change in a non-electrical physical property, wherein the sensor is disposed within the simulated physiological structure; and~~

~~(c)   an instrument is placed in proximity to at least a portion of the simulated physiological structure, but not in contact with any portion of the evaluation circuit, the instrument not being configured to introduce an electrical current into the evaluation circuit.~~

56.-87. (Canceled)

88. (Previously Presented) A medical training simulator suitable for medical skills training and evaluation, the medical training model comprising a simulated physiological structure and an evaluation circuit including a conductive elastomer, the evaluation circuit including a first conductive segment and a second conductive segment separated by a non conductive segment such that they are not electrically coupled to each other, the first conductive segment and the second conductive segment being part of the simulated physiological structure, said evaluation circuit being configured to provide data related to proper execution of a simulated medical procedure being performed using the simulated physiological structure when the non conductive segment is removed and the first conductive segment and the second conductive segment are coupled together during the simulated medical procedure, thereby completing the evaluation circuit and enabling the evaluation circuit to provide the data related to the proper execution of the simulated medical procedure.

89. (Currently Amended) A medical training simulator suitable for medical skills training and evaluation, the medical training model comprising a simulated physiological structure and an evaluation circuit including a conductive elastomer, the evaluation circuit including a first conductive segment and a second conductive segment [[are]] separated by a gap, such that they are not electrically coupled to each other, the first conductive segment and the second conductive segment being part of the simulated physiological structure, said evaluation circuit being configured to provide data related to proper execution of a simulated medical procedure being performed using the simulated physiological structure when either the first conductive segment or the second conductive segment are repositioned and placed in contact with either the other of the first conductive segment or the other of the second conductive segment during the simulated medical procedure, thereby completing the evaluation circuit and enabling the evaluation circuit to provide the data related to the proper execution of the simulated medical procedure.

90. – 100. (Canceled)

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